PART I – SECTION C
SCOPE OF WORK

SPECIFICATIONS FOR FIRE PROTECTION AT THE
WASHINGTON AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)
LEESBURG, VIRGINIA (LOUDOUN COUNTY)

1.1 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Periodic maintenance and inspection of the Fire alarm, fire detection and fire suppression systems at the Leesburg VA, ARTCC located at 825 East Market Street in Leesburg, VA 20176.

B. References:

1. Work included here will be done in accordance with the following standards

a. FAA Order JO 6930.1B Fire Prevention and Maintenance of Fire Protection Equipment

b. NFPA 72 National Fire Alarm Code

c. NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-based Fire Protection Systems

d. NFPA Standard 17A Standard for Wet Chemical Extinguishing Systems

C. Personnel Qualifications and Experience

1. Service personnel shall be qualified and experienced in accordance with section 10.2.2.5.1 of NFPA 72. Specifically:

a. Personnel who are factory trained and certified for fire alarm system service of the specific type and brand of system.

b. Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the authority having jurisdiction

c. Personnel who are registered, licensed, or certified by a state or local authority.

d. Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of fire alarm systems.

D. Work under this agreement will consist of the following list. All results and findings shall be documented:

1. Fire Alarm Control Panel (FACP) Inspection and testing. Equipment in this section includes three (3) Edwards EST-3 Fire Alarm Control Panels.

   a. Annually

      (1) Test to confirm that all alarm, trouble, and supervisory signals are properly being sent to the local fire alarm panel, and if applicable, being sent and received at the supervising central alarm station.

      (2) Test and verify each fire alarm circuit including signaling, notification appliance, and indicating device circuits for ground faults and open circuits.

      (3) Test the power supply to the alarm panel for proper supervision including loss of AC power and transfer to battery back-up.

      (4) Conduct a voltage test of the batteries in the fire alarm panel.

      (5) Conduct the specified battery tests as indicated in NFPA 72 for the specific battery including lead-acid type, nickel cadmium type, and sealed lead-acid type.

      (6) Conduct a functional heat test on all heat detectors except that non-restorable fixed temperature heat detectors that are less than 15 years old should not be tested using a heat source.

      (7) Conduct a functional test on all smoke detectors for both alarm and trouble. Verify that all signals are received at the local fire alarm control panel.

      (8) Test all manual fire alarm pull boxes.

      (9) Test all audible devices such as horns and bells to ensure that each device is functioning. Record the sound pressure level during testing.

      (10) Test all visual devices such as strobes. Check to ensure that occupancy changes within the facility have not obstructed the ability for occupants to see the visual devices.

(11) Visually inspect and clean if necessary all air duct detectors. Test each detector to ensure proper receipt of trouble and alarm notification at the local fire alarm control panel.

(12) Test other detection devices such as air sampling, flame, and projected beam detectors in accordance with NFPA 72.

(13) Test all interlocked devices to the fire alarm system such as door closures, fan shut-off or start-ups, elevator recall, power shutdown, etc., for proper activation following alarm system activation. Test to ensure that the proper sequence of events occur following receipt of an alarm at the local fire alarm control panel.

(14) Test the Digital Alarm Communicator Transmitter (DACT) by testing for line seizure while initiating an alarm signal while using the primary line for a telephone call. Transmission to the central station via the DACT shall be within 90 seconds. The primary and secondary lines from the DACT shall also be tested for proper supervision by disconnecting each line and ensuring that trouble transmission to the supervising station occurs within 4 minutes.

2. Sprinkler System Inspection and Testing Services. Equipment in this section includes twelve (12) Viking Firecycle III panels.

   a. Quarterly

      (1) Water flow alarm devices should be checked according to NFPA 25.

      (2) Test low air pressure alarms on preaction and dry pipe valves.

      (3) Quick opening devices such as accelerators on dry pipe systems shall be tested quarterly in accordance with the procedure described in NFPA 25.

      (4) Test priming water levels on dry pipe and preaction valves.

   b. Semiannually

      (1) Test water flow rate through main test (drain) valve. Record pressure on FAA Form 6000-8, with valve closed and with valve fully open. NFPA 25 recommends that main drain valves be tested annually and after any work has been done on a sprinkler system.

Main drain valves should be tested for wetpipe, preaction, and dry pipe sprinkler systems. The following procedure is recommended by NFPA 25:

(a) Record the water pressure from the gage that shows incoming water pressure.
(b) Close the alarm control valve on alarm check valves.
(c) Check to see where the water discharge from the main drain will flow. Care should be taken to ensure landscaping, vehicles, or pedestrians will not be in the path of discharging water. Avoid discharging water on walkways during freezing weather.
(d) Fully open the main drain valve.
(e) After the flow has stabilized, record the water pressure while water is still flowing.
(f) Close the main drain valve slowly.
(g) Open the alarm control valve.

(2) Test all water flow alarm devices. NFPA 25 recommends that water flow alarms be tested quarterly.

(3) Test all alarm, supervisory, and trouble signaling devices and systems. NFPA 72 covers the maintenance, inspection and testing of alarm initiating and supervisory devices. Semiannual testing is acceptable for valve tamper and other supervisory signal devices. Manufacturers Instructions

(4) Check condition of sprinklers. NFPA 25 recommends annual inspection of sprinklers. Check for:

(a) Cleanliness.
(b) Free from corrosion and dirt.
(c) Not painted or whitewashed.
(d) Not bent or damaged.
(e) Free from obstructions; no material shall be placed or stored within 18 inches of sprinkler.
(f) Properly rated.
(g) Required spares available.

(5) Test operation of deluge and automatic valves in conjunction with testing of alarm devices and systems. NFPA 25 recommends that the priming water level for preaction and dry pipe valves be tested quarterly in accordance with the manufacturer's instructions or as follows:

(a) Open the priming level test valve.

(b) If water flows, drain it.
(c) Close the valve when water stops flowing and air discharges.
(d) If air initially discharges when the valve is opened, the priming water level is probably to low. Add priming water in accordance with the manufacturer's directions.

c. Annually

(1) Test operation of dry pipe valves. Clean and adjust as required. NFPA 25 recommends that both preaction and dry pipe valves be trip tested annually. "Dry" trip tests may be done annually as long as a full "wet" trip test is done every three years. Annually, the interior of each dry pipe valve and preaction valve shall be inspected, parts examined and cleaned, and any required repairs made.

(2) Inspect all fire department connections. NFPA 25 recommends that fire department connections be inspected quarterly.

(3) Check operation of sprinkler system that protects cooking equipment and ventilation systems. NFPA 96 recommends a semiannual inspection of extinguishing systems that protect cooking equipment. Fusible link activated sprinkler heads should be replaced annually.

(4) Check and clean all sprinklers that protect cooking equipment and ventilation systems. Clean other actuating devices.

(5) Check all gages with an inspector's gage to ensure reliability NFPA 25 recommends that gages be replaced every five years or tested every five years with a comparison to a calibrated gage.

(6) Test all outside or open sprinkler equipment. NFPA 25 recommends testing open sprinklers connected to a deluge control valve at full flow. Any plugged sprinklers or piping shall be cleaned or replaced and a visual inspection should be done of sprinkler pipe and fittings. Pipe and fittings shall be in good condition and free from mechanical damage, leakage, corrosion, and misalignment. Piping shall be free from external loading. Storage on piping or attachment to sprinkler piping shall not be allowed.

(7) Sprinkler pipe hangars and seismic sway bracing shall be visually inspected to ensure hangers and bracing are not loose or otherwise damaged.

(8) Check to see that a stock of spare sprinklers is available to match existing building systems.

(9) Conduct a main drain test (see procedure under semiannual testing).

(10) Test freezing point of antifreeze solutions and add solution as needed.

(11) Low point drains in dry pipe sprinkler systems shall be drained after each operation and before the onset of freezing weather.

(12) Automatic air-pressure maintenance devices shall be tested annually if provided on dry pipe systems.

(13) Inquiry should be done to see if a possible source of obstruction to sprinkler piping has been introduced. If so, an obstruction prevention investigation should be undertaken as outlined in NFPA 25.

3. Air Sampling System Testing and Inspection. Equipment in this section includes two (2) VESDA and one (1) ANALASER systems.

   a. Semi-annually

      (1) Conduct visual inspection of batteries and load voltage tests on battery terminals. Isolate primary power during voltage test.
      (2) Restore primary power and check charger voltage with battery disconnected.
      (3) Conduct visual inspection of tube system
      (4) Smoke sensitivity tests, using the ASSD controls. Most controls have a sensitivity test feature, which generally involves depressing a button.

   b. Annually

      (1) Conduct 30-minute discharge tests on batteries. Disconnect primary power during the test.
      (2) Conduct functional test from last port on each tube. Smoke Test (functional test)

      Use aerosol smoke product approved by the manufacturer Transport time measured to get a "2 bar" increase within 120 seconds.

      (3) Manometer test :25 Pa, minimum at each port Conduct flow test on each port, using a manometer.

4. Fire Hydrant Testing and inspection

    a. Annually

        (1) Inspect hydrant accessibility
        (2) Inspect for leaks in top of hydrant outlets
        (3) Inspect for leaks in gaskets under caps
        (4) Inspect for cracks in hydrant barrel
        (5) Inspect operating nut for wear or rounded corners
        (6) Inspect outlet threads for damage
        (7) Conduct flow test for not less than one (1) minute until all foreign material has cleared.
        (8) Provide written report for each inspection

5. Kitchen Hood Fire Suppression System Testing and Inspection

    a. Semi-annually

        (1) Releasing panel functional test
        (2) Agent storage container inspected
        (3) Agent storage container releasing circuitry tested
        (4) Nozzles and piping inspected
        (5) System application integrity inspected
        (6) Manual station tested
        (7) Fusible link replacement

6. Portable Fire Extinguisher Service. Equipment in this section includes approximately 213 portable fire extinguishers.

    a. Annually

        (1) Check that extinguishers are in their designated locations
        (2) Insure that there are no obstructions to access or visibility
        (3) Check that the operating instructions on the nameplate are legible and facing outward
        (4) Check that safety seals and tamper indicators are not broken or missing
        (5) Determine fullness of the extinguishers by weighing or hefting
        (6) Examine extinguishers for obvious physical damage, missing parts, corrosion, leakage, or clogged nozzles
        (7) Check that pressure gauge or indicator reads in the operable range or position
        (8) Check the condition of the hose and nozzle (and tires and wheels for wheeled units)
        (9) Make sure that the HMIS label is in place

(10) Tag each unit to insure that it conforms to fire department regulations

1.2 WORK SCHEDULE

A. Work involving testing of fire alarm systems and devices will be done after normal working hours and will be scheduled with the facility 2 weeks prior to the start of any testing.

1.3 COORDINATION WITH FACILITY

A. Contractor shall closely coordinate all work activities with the Contracting Officer's Representative (COR) and the Environmental Services Unit.

B. The contractor shall receive access to the facility via the Environmental Services Unit employees and will be escorted at all times.

1.4 OTHER WORK

A. Contractor is made aware of other ongoing maintenance activity that may be underway at this facility.

B. Cooperate fully with separate entities so work on other activities may be carried out smoothly, without interfering with or delaying work under this contract.

1.5 IMPACT TO FACILITY

A. Contractor is made aware that this facility is responsible for the control and navigation of air traffic. Contract work or workers **cannot** impact operations at this facility. **Unauthorized and/or unexpected interruption to the operation of this facility may jeopardize the safety of the flying public.** Closely coordinate all proposed activities with the COR.

B. Contractor shall not operate existing electronic, electrical or mechanical equipment at this facility.

1.6 IMPACT TO SURROUNDING AREAS

A. Contractor shall not impact the surrounding areas in any way during the project.

1.7 PROTECTION DURING CONSTRUCTION

A. Contractor is responsible for providing the proper protection of the existing areas in and around the work area to include protection from noise, fumes, dust, and damage to existing walls, floors and roofs. Contractor cannot leave area exposed to the elements for any duration that could potentially damage existing equipment.

1.8 TEMPORARY FACILITIES

A. The Contractor shall provide temporary illumination for construction needs, safe working conditions, public safety and security lighting in compliance with the requirements of 29 CFR 1926.26 and subpart D.

B. The contractor shall be permitted to use facility building service power. **UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE ALLOWED TO HOOK INTO THE CRITICAL POWER SOURCE.** Closely coordinate temporary electrical requirements with on site FAA personnel.

C. The contractor is advised that running water and sanitary facilities are available at this location.

END

BUSINESS DECLARATION

1 Name of Firm: _____ Tax Identification No.: _____

2 Address of Firm: _____

3 a. Telephone Number of Firm: _____ b. Fax Number of Firm: _____

4 a. Name of Person Making Declaration _____

b. Telephone Number of Person Making Declaration _____

c. Position Held in the Company _____

5 Controlling Interest in Company *("X" all appropriate boxes)*

☐ a. Black American ☐ b. Hispanic American ☐ c. Native American ☐ d. Asian American

☐ e. Other Minority *(Specify)* _____ ☐ f. Other *(Specify)* _____

☐ g. Female ☐ h. Male ☐ i. 8(a) Certified *(Certification letter attached)* ☐ j. Service Disabled Veteran Small Business

6 Is the person identified in Number 4 above, responsible for day-to-day management and policy decision making, including but not limited to financial and management decisions?

☐ a. Yes ☐ b. No *(If "NO," provide the name and telephone number of the person who has this authority.)*

_____

7 Nature of Business *(Specify all services/products (NAIC))* _____

8 (a) Years the firm has been in business _____ (b) No. of Employees _____

9 Type of Ownership: ☐ a. Sole Ownership ☐ b. Partnership

☐ c. Other *(Explain)* _____

10 Gross receipts of the firm for the last three years:

a.1. Year Ending: _____ b.1. Gross Receipts _____

a.2. Year Ending: _____ b.2. Gross Receipts _____

a.3. Year Ending: _____ b.3. Gross Receipts _____

11 Is the firm a small business? ☐ a. Yes ☐ b. No

12 Is the firm a service disabled veteran owned small business? ☐ a. Yes ☐ b. No

13 Is the firm a socially and economically disadvantaged small business? ☐ a. Yes ☐ b. No

I DECLARE THAT THE FOREGOING STATEMENTS CONCERNING _____
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF. I AM AWARE THAT I AM SUBJECT TO CRIMINAL PROSECUTION UNDER THE PROVISIONS OF 18 USCS 1001.

14. a. Signature _____ b. Date: _____

c. Typed Name _____ d. Title: _____